

DEC 29 2006

Application No. 10/756,817

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1-34. (Canceled).

35. (Previously Presented) A method for a knee arthroplasty procedure comprising:

positioning at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least one resected surface on the end of the long bone by guiding the saw blade with at least the portion of the at least one guide surface

Application No. 10/756,817

and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting a knee arthroplasty implant on the at least one resected surface.

36. (Previously Presented) The method of claim 35 wherein the long bone is the femur and the step of positioning the at least one planar guide surface is performed proximate a distal end of the femur.

37. (Previously Presented) The method of claim 36 wherein the step of using the cutting tool creates at least two resected surfaces, including a distal surface on the femur and an anterior surface on the femur.

38. (Previously Presented) The method of claim 35 wherein the long bone is a tibia and the step of positioning the at least one planar cutting guide surface is performed proximate a proximal end of the tibia.

39. (Previously Presented) A method for a knee implant procedure comprising:
positioning at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface

Application No. 10/756,817

having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least one resected surface proximate the end of the long bone by guiding the saw blade with at least the portion of the at least one guide surface and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting a knee implant on the at least one resected surface,

wherein the at least one guide surface includes at least two portions, the portion located along the at least one of the medial side or the lateral side and an other portion located along an anterior side and proximate the end of the long bone and having a longer dimension generally along the at least anterior side and a shorter dimension generally transverse to the longer dimension, the step of positioning the at least one guide surface is performed such the other portion extends to less than about one-half of a width of the anterior side.

40. (Previously Presented) A method for a knee implant procedure comprising:

operably positioning at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is operably positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being operably positioned generally transverse to a long axis of the long bone with the portion

Application No. 10/756,817

of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using an alignment mechanism operably coupled to the at least one planar cutting guide surface to align the at least one guide surface relative to the long bone in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

locking the alignment mechanism to position the at least one guide surface in a desired location and orientation;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least one resected surface proximate the end of the long bone by guiding the saw blade with at least the portion of the at least one guide surface and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting a knee implant on the at least one resected surface.

41. (Previously Presented) The method of claim 40 wherein the step of using the alignment mechanism is performed by moving the at least one guide surface through at least a portion of an infinitely adjustable range of motion for the at least one of the at least three degrees of freedom.

42. (Previously Presented) The method of claim 35 wherein the step of using the cutting tool is performed with a powered saw selected from the set consisting of an oscillating saw or a reciprocating saw.

Application No. 10/756,817

43. (Currently Amended) A method for a knee arthroplasty procedure comprising:
- providing a cutting guide having a slot adapted to receive and guide a cutting tool, the cutting tool having a saw blade with at least one cutting edge at a distal end of a long axis of the saw blade;
 - positioning the cutting guide in a position proximate an end of one of a femur or a tibia with at least a portion of the slot facing the end of the one of the femur or the tibia from one of a medial aspect or a lateral aspect;
 - extending the saw blade through the slot;
 - cutting the end of the one of the femur or the tibia by moving the long axis of the cutting tool in at least one of a medial to lateral direction or a lateral to medial direction to create at least a portion of at least one resected surface; and
 - implanting a knee arthroplasty implant on the at least one resected surface.
44. (Previously Presented) A method for a knee arthroplasty procedure comprising:
- providing a cutting guide having a slot adapted to receive and guide a cutting tool, the cutting tool having a saw blade with at least one cutting edge at a distal end of a long axis of the saw blade;
 - positioning the cutting guide in a position proximate an end of one of a femur or a tibia with at least a portion of the slot facing the end of the one of the femur or the tibia from one of a medial aspect or a lateral aspect by:

Application No. 10/756,817

using an alignment guide operably coupled to the cutting guide to align the slot relative to the one of the femur or the tibia in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

locking the alignment guide to position the cutting guide in a desired location and orientation;

extending the saw blade through the slot;

cutting the end of the one of the femur or the tibia by moving the cutting tool in at least one of a medial to lateral direction or a lateral to medial direction to create at least one resected surface; and

implanting a kncc arthroplasty implant on the at least one resected surface.

45. (Previously Presented) The method of claim 44 wherein the step of using the alignment guide moves the cutting guide through an infinitely adjustable range of motion.

46. (Previously Presented) The method of claim 43 wherein the cutting tool is a powered saw and the step of cutting is performed with the powered saw selected from the set consisting of an oscillating saw or a reciprocating saw.

47. (Previously Presented) A method for a knee implant procedure comprising:

providing implants and instrumentation for the knee implant procedure, the implants and instrumentation including at least:

a femoral implant;

Application No. 10/756,817

a tibial implant;

a femoral intramedullary rod;

a femoral alignment guide extending at an angle to the femoral intramedullary rod;

a femoral cut guide mountable to the femoral alignment guide;

a tibial extramedullary alignment guide; and

a tibial cut guide;

resecting a distal end of a femur of a knee including at least:

inserting the femoral intramedullary rod into an intramedullary canal of the femur;

positioning the femoral alignment guide so that a surface on the femoral alignment guide contacts a distal femoral condyle;

operably connecting the femoral cut guide to the femoral alignment guide and positioning the femoral cut guide to extend toward and generally along at least one of a medial side or a lateral side of the knee; and

guiding a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade by using the femoral cut guide to create at least one resected surface on the distal end of the femur by guiding the long axis of the saw blade from the at least one of the medial side or the lateral side of the knee;

resecting a proximal end of a tibia of the knee including at least:

positioning the tibial extramedullary alignment guide;

Application No. 10/756,817

operably connecting the tibial cut guide to the tibial extramedullary alignment guide and positioning the tibial cut guide generally adjacent at least a portion of an anterior side of the tibia and at least one of the medial side or the lateral side of the knee; and

guiding a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade by using the tibial cut guide to create at least one resected surface on the proximal end of the tibia by guiding the long axis of the saw blade from at least one of the medial side or the lateral side of the knee; and

implanting the implants by:

positioning the femoral implant with at least one fixation surface of the femoral implant generally adjacent the at least one resected surface of the femur; and

positioning the tibial implant with at least one fixation surface of the tibial implant generally adjacent to the at least one resected surface of the tibia.

48. (Previously Presented) The method of claim 47 wherein the step of positioning the femoral cut guide comprises:

using the femoral alignment guide operably to align the femoral cut guide relative to the femur in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

Application No. 10/756,817

locking the femoral alignment guide to position the femoral cut guide in a desired location and orientation.

49. (Previously Presented) The method of claim 48 wherein the step of using the femoral alignment guide moves the femoral cut guide through an infinitely adjustable range of motion.

50. (Previously Presented) The method of claim 47 wherein the step of positioning the femoral cut guide positions the femoral cut guide to extend toward and generally along one of the medial side or the lateral side of the knee.

51. (Previously Presented) The method of claim 47 wherein the step of positioning the tibial cut guide comprises:

using the tibial alignment guide operably to align the tibial cut guide relative to the tibia in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

locking the tibial alignment guide to position the tibial cut guide in a desired location and orientation.

52. (Previously Presented) The method of claim 51 wherein the step of using the tibial alignment guide moves the tibial cut guide through an infinitely adjustable range of motion.

Application No. 10/756,817

53. (Previously Presented) The method of claim 47 wherein the step of positioning the tibial cut guide positions the tibial cut guide to extend toward and generally along one of the medial side or the lateral side of the knee.

54. (Previously Presented) The method of claim 47 wherein the cutting tool for the step of resecting the distal end of the femur is the same as the cutting tool for the step of resecting the proximal end of the tibia and is a powered saw and each step is performed with the powered saw selected from the set consisting of an oscillating saw or a reciprocating saw.

Please add the following new claims:

55. (New) A method for providing instrumentation, implants and information for a knee arthroplasty procedure comprising:

providing a knee arthroplasty implant and a cutting guide having at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is adapted to be positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being adapted to be positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension; and

Application No. 10/756,817

providing a surgeon with information on a method to perform the knee arthroplasty procedure using the cutting guide and the knee arthroplasty implant, the method including:

positioning the at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least a portion of at least one resected surface on the end of the long bone by guiding the saw blade with at least the portion of the at least one guide surface and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting the knee arthroplasty implant on the at least one resected surface.

56. (New) A method for providing instrumentation, implants and information for a knee arthroplasty procedure comprising:

Application No. 10/756,817

providing a knee arthroplasty implant and a cutting guide having at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is adapted to be positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being adapted to be positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension; and

providing a surgeon with information on a method to perform the knee arthroplasty procedure using the cutting guide and the knee arthroplasty implant, the method including:

positioning the at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is positioned along one of a medial side or a lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least one resected surface proximate the end of the long bone by guiding the saw blade with at least the portion of the

Application No. 10/756,817

at least one guide surface and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting the knee implant on the at least one resected surface,

wherein the at least one guide surface includes at least two portions, the portion located along the at least one of the medial side or the lateral side and an other portion located along an anterior side and proximate the end of the long bone and having a longer dimension generally along the at least anterior side and a shorter dimension generally transverse to the longer dimension, the step of positioning the at least one guide surface is performed such the other portion extends to less than about one-half of a width of the anterior side.

57. (New) A method for providing instrumentation, implants and information for a knee arthroplasty procedure comprising:

providing a cutting guide having at least one generally planar cutting guide surface, an alignment mechanism operably coupled to the at least one planar cutting guide surface and a knee arthroplasty implant; and

providing a surgeon with information on a method to perform the knee arthroplasty procedure using the cutting guide, the alignment mechanism and the knee arthroplasty implant, the method including:

operably positioning the at least one generally planar cutting guide surface that is adapted to interface and guide a saw blade such that at least a portion of the at least one guide surface is operably positioned along one of a medial side or a

Application No. 10/756,817

lateral side and proximate an end of a long bone of a knee joint, the at least one guide surface also being operably positioned generally transverse to a long axis of the long bone with the portion of the at least one guide surface having a longer dimension generally along the at least one of the medial or lateral side and a shorter dimension generally transverse to the longer dimension;

using the alignment mechanism operably coupled to the at least one planar cutting guide surface to align the at least one guide surface relative to the long bone in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

locking the alignment mechanism to position the at least one guide surface in a desired location and orientation;

using a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade to create at least one resected surface proximate the end of the long bone by guiding the saw blade with at least the portion of the at least one guide surface and moving the long axis of the saw blade in a direction generally parallel to the shorter dimension; and

implanting the knee implant on the at least one resected surface.

58. (New) A method for providing instrumentation, implants and information for a knee arthroplasty procedure comprising:

Application No. 10/756,817

providing a femoral knee arthroplasty implant and a cutting guide having a slot adapted to receive and guide a cutting tool, the cutting tool having a saw blade with at least one cutting edge at a distal end of a long axis of the saw blade;

providing a surgeon with information on a method to perform the knee arthroplasty procedure using the cutting guide, the cutting tool and the knee arthroplasty implant, the method including:

positioning the cutting guide in a position proximate an end of one of a femur or a tibia with at least a portion of the slot facing the end of the one of the femur or the tibia from one of a medial aspect or a lateral aspect;

extending the saw blade through the slot;

cutting the end of the one of the femur or the tibia by moving the long axis of the cutting tool in at least one of a medial to lateral direction or a lateral to medial direction to create at least a portion of at least one resected surface; and

implanting the knee arthroplasty implant on the at least one resected surface.

59. (New) A method for providing instrumentation, implants and information for a knee arthroplasty procedure comprising:

providing a knee implant, a cutting guide having a slot adapted to receive and guide a cutting tool, the cutting tool having a saw blade with at least one cutting edge at a distal end of a long axis of the saw blade and an alignment guide operably coupled to the cutting guide;

Application No. 10/756,817

providing a surgeon with information on a method to perform the knee arthroplasty procedure using the cutting guide, the cutting tool and the knee arthroplasty implant, the method including:

positioning the cutting guide in a position proximate an end of one of a femur or a tibia with at least a portion of the slot facing the end of the one of the femur or the tibia from one of a medial aspect or a lateral aspect by:

using the alignment guide operably coupled to the cutting guide to align the slot relative to the one of the femur or the tibia in at least three degrees of freedom, at least one of the degrees of freedom being rotational; and

locking the alignment guide to position the cutting guide in a desired location and orientation;

extending the saw blade through the slot;

cutting the end of the one of the femur or the tibia by moving the cutting tool in at least one of a medial to lateral direction or a lateral to medial direction to create at least one resected surface; and

implanting the knee arthroplasty implant on the at least one resected surface.

60. (New) A method for providing implants, instrumentation and information for a knee implant procedure comprising:

providing implants and instrumentation for the knee implant procedure, the implants and

Application No. 10/756,817

instrumentation including at least:

- a femoral implant;
- a tibial implant;
- a femoral intramedullary rod;
- a femoral alignment guide extending at an angle to the femoral intramedullary rod;
- a femoral cut guide mountable to the femoral alignment guide;
- a tibial extramedullary alignment guide; and
- a tibial cut guide;

providing a surgeon with information for a method for performing the knee implant procedure comprising:

- resecting a distal end of a femur of a knee including at least:
 - inserting the femoral intramedullary rod into an intramedullary canal of the femur;
 - positioning the femoral alignment guide so that a surface on the femoral alignment guide contacts a distal femoral condyle;
 - operably connecting the femoral cut guide to the femoral alignment guide and positioning the femoral cut guide to extend toward and generally along at least one of a medial side or a lateral side of the knee; and
 - guiding a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade by using the femoral cut guide to create at least one resected surface on the distal end of the femur by guiding the long axis

Application No. 10/756,817

of the saw blade from the at least one of the medial side or the lateral side of the knee;

resecting a proximal end of a tibia of the knee including at least:

positioning the tibial extramedullary alignment guide;

operably connecting the tibial cut guide to the tibial extramedullary alignment guide and positioning the tibial cut guide generally adjacent at least a portion of an anterior side of the tibia and at least one of the medial side or the lateral side of the knee; and

guiding a cutting tool having a saw blade with a cutting edge at a distal end of a long axis of the saw blade by using the tibial cut guide to create at least one resected surface on the proximal end of the tibia by guiding the long axis of the saw blade from at least one of the medial side or the lateral side of the knee; and

implanting the implants by:

positioning the femoral implant with at least one fixation surface of the femoral implant generally adjacent the at least one resected surface of the femur; and

positioning the tibial implant with at least one fixation surface of the tibial implant generally adjacent to the at least one resected surface of the tibia.